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AUTHENTICATION OF A PATENT TRANSLATION

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Patent Application/Publication No:

JP 09-190156 A

I, Michael Landay, MA(Cantab), Member of the Institute of Translation and Interpreting of *Japanese Research Translations*, Edinburgh, Scotland, hereby declare that I am the translator of the above-noted patent application/publication and certify that my translation into English is accurate and faithful to the best of my knowledge and belief.

Signature of translator

Date

12/5/05

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Translation of Kokai Publication of Japanese Patent Application

MOUNTING STRUCTURE OF PANEL-TYPE DISPLAY

Kokai Publication No. 09-190156
 Kokai Publication Date 22 July 1997
 Int. Cl.⁶ G09F 9/00; H05K 7/12
 Application No. 08-002145
 Filing Date 10 January 1996
 Applicant Fujitsu General Limited
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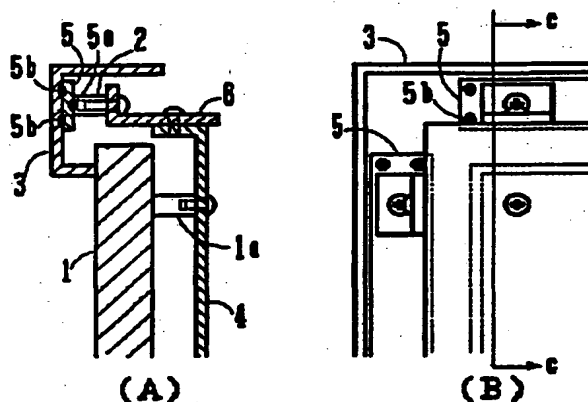
Abstract

Task

To provide a mounting structure such that stress is not applied to a mounting portion of a panel.

Solution

Rear plate 4 is attached via boss 1a set upright on the back of for example PDP 1; and attachment plate 6, which has been attached to a side of rear plate 4, is fixed by means of a screw or the like to boss 2 set upright on the inside of front frame 3 of the display. Boss 2 is welded to baseplate 5 by means of weld 5a, baseplate 5 having been welded to the inside of front frame 3 by means of welds 5b.



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Claims

1. A mounting structure of a panel-type display, characterised in that in a panel-type display which is held by setting a boss upright on the inside of a front frame of the panel-type display and fixing the panel-type display to said boss, there is provided a baseplate which is fixed to the inside of said front frame, and said boss is set upright on said baseplate.
2. The mounting structure of a panel-type display recited in Claim 1, wherein the baseplate is a flat plate, the boss is welded to this flat plate, and this flat plate is welded to the inside of said front frame.
3. The mounting structure of a panel-type display recited in Claim 1, wherein the baseplate is L-shaped or U-shaped, said shapes being obtained by bending a plate; and the baseplate is welded to a side of said front frame.
4. The mounting structure of a panel-type display recited in Claim 1, wherein the baseplate is L-shaped or U-shaped, said shapes being obtained by bending a plate; one side of said front frame is bent towards the inside of the front frame; one edge of said baseplate is retained in said bent portion; and the baseplate is fixed by welding in the vicinity of its other edge.
5. The mounting structure of a panel-type display recited in Claim 1, Claim 2, Claim 3 or Claim 4, wherein a plurality of bosses are fixed to a single baseplate.
6. The mounting structure of a panel-type display recited in Claim 5, wherein there is a single baseplate at each side of the front frame.
7. The mounting structure of a panel-type display recited in Claim 1, Claim 2, Claim 3, Claim 4, Claim 5 or Claim 6, wherein the baseplate is an aluminium plate.

Detailed Description of the Invention

Field of industrial application

[0001] The present invention relates to panel-type displays such as PDPs or LCDs, which are used to display television pictures and the like. More particularly, the invention relates to mounting structures of panel-type displays which eliminate strains in the mounting portion.

Prior art

[0002] FIG. 3(A) is a side view (through section c-c in FIG. 3(B)), and FIG. 3(B) is a rear view, of the essential portions of a conventional example of a panel-type display mounting structure. Rear plate 34 is attached to boss 31a set upright on the back of for example PDP 31; and attachment plate 36, which has been attached to a side of rear plate 34, is fixed by a screw or the like to boss 32 set upright on the inside of front frame 33 of the display. Given this

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structure, because boss 32 is welded directly to the inside of front frame 33, the screwing stresses that act on boss 32 result in a tendency for strain to occur on the front of front frame 33 in the region corresponding to the boss. If, by way of an example, the specification calls for application of a coating to the front of the frame, there is a risk of crazing.

Problem that the invention is intended to solve

[0003] The present invention has been devised in the light of the problem described above, and it is an object of the invention to provide a mounting structure such that stress is not applied to the mounting portion of the panel.

Means for solving problem

[0004] In a panel-type display which is held by setting a boss upright on the inside of a front frame of the panel-type display and fixing the panel-type display to this boss, there is provided a baseplate which is fixed to the inside of the front frame, and the boss is set upright on this baseplate.

[0005] The baseplate is a flat plate, the boss is welded to this flat plate, and this flat plate is welded to the inside of the front frame.

[0006] The baseplate is L-shaped or U-shaped, this shape being obtained by bending a plate, and the baseplate is welded to a side of the front frame.

[0007] The baseplate is L-shaped or U-shaped, this shape being obtained by bending a plate; one side of the front frame is bent towards the inside of the front frame; one edge of the baseplate is retained in this bent portion; and the baseplate is fixed by welding in the vicinity of its other edge.

[0008] A plurality of bosses are fixed to a single baseplate.

[0009] There is a single baseplate at each side of the front frame.

[0010] The baseplate is an aluminium plate.

Working of the invention

[0011] In a panel-type display which is held by setting a boss upright on the inside of a front frame of the panel-type display and by fixing the panel-type display to this boss: by providing a baseplate which is fixed to the inside of the front frame, and by setting the boss upright on this baseplate, stress acting on the boss is received by the baseplate portion and is dispersed, with the result that strain at the front of the front frame is decreased.

[0012] By making the baseplate a flat plate, welding the boss to this flat plate, and welding this flat plate to the inside of the front frame, strain in the front frame can be decreased by means of a simple structure.

[0013] By making the baseplate L-shaped or U-shaped, these shapes being obtained by bending a plate, and by welding this baseplate to a side of the front frame, the weld is situated in an inconspicuous location.

[0014] By making the baseplate L-shaped or U-shaped, these shapes being obtained by bending a plate; by bending one side of the front frame towards the inside of the front frame; by retaining one edge of the baseplate in this bent portion; and by fixing the baseplate by welding in the vicinity of its other edge, the labour involved in welding is reduced by half.

[0015] By fixing a plurality of bosses to a single baseplate, the labour involved in attaching baseplates can be reduced.

[0016] By having a single baseplate at each side of the front frame, attaching baseplates is made even easier.

[0017] By making the baseplate aluminium, the overall weight of the display can be reduced.

Embodiments

[0018] Detailed descriptions will now be given, with reference to the drawings, of panel-type display mounting structures according to the present invention. FIG. 1(A) is a side view (through section c-c in FIG. 1(B)), and FIG. 1(B) is a rear view, of the essential portions of a first embodiment of a panel-type display mounting structure according to the present invention. Rear plate 4 is attached via boss 1a set upright on the back of for example PDP 1; and attachment plate 6, which has been attached to a side of rear plate 4, is fixed by means of a screw or the like to boss 2 set upright on the inside of front frame 3 of the display. Boss 2 has been welded to baseplate 5 by means of weld 5a, baseplate 5 having been welded to the inside of front frame 3 by means of welds 5b.

[0019] FIG. 2(A) is a side view (through section c-c in FIG. 2(B)), and FIG. 2(B) is a rear view, of the essential portions of another embodiment of a panel-type display mounting structure according to the present invention. Rear plate 24 is attached via boss 21a set upright on the back of for example PDP 21; and attachment plate 26, which has been attached to a side of rear plate 24, is fixed by means of a screw or the like to boss 22 set upright on the inside of front frame 3 of the display. Boss 22 has been welded to baseplate 25 by means of weld 25a. Baseplate 25 is made L-shaped or U-shaped by bending a plate. If baseplate 25 is L-shaped, then as well as being welded to side 23a of front frame 23 by means of weld 25b, it is welded

by means of weld 25c on the inside of front frame 23. If baseplate 25 is U-shaped, it can be attached by being welded at sides 23a and 23b of the front frame by means of welds 25b and 25d respectively.

[0020] A further mounting structure that is feasible for baseplate 25 is obtained by creating bent portion 23c by bending side 23b of front frame 23 towards the inside of the front frame; retaining one edge of baseplate 25 in bent portion 23c; and welding the other edge to side 23a of the front frame by weld 25b. In this case, no welding is required at aforementioned weld locations 25c and 25d.

[0021] Although a single baseplate portion may be provided for each boss, it is also feasible to extend a baseplate portion in the longer direction of front frame 23, and to provide a plurality of bosses on a single baseplate. It is also feasible to extend a baseplate portion to approximately the same length as that of a side of front frame 23, and thereby to provide just a single baseplate at each side of the front frame. By using aluminium sheet as the baseplate material, the overall weight of the front frame of the display, and hence the overall weight of the display, can be reduced.

Benefits of the invention

[0022] As has been explained above, by adopting a mounting structure wherein a baseplate is provided on the inside of the front frame of a panel-type display, and the display panel is mounted by setting a boss upright on this baseplate, it is possible to achieve a structure whereby stress does not act on a mounting portion of the panel. It is therefore possible to eliminate the risk that a coating applied to the front frame will undergo crazing, etc. due to the effect of the stresses acting on a boss.

Brief Description of the Drawings

FIG. 1(A) is a side view (through section c-c in FIG. 1(B)), and FIG. 1(B) is a rear view, of the essential portions of a first embodiment of a panel-type display mounting structure according to the present invention. FIG. 2(A) is a side view (through section c-c in FIG. 2(B)), and FIG. 2(B) is a rear view, of the essential portions of another embodiment of a panel-type display mounting structure according to the present invention. FIG. 3(A) is a side view (through section c-c in FIG. 3(B)), and FIG. 3(B) is a rear view, of the essential portions of a conventional example of a panel-type display mounting structure.

Explanation of referencing numerals

1	PDP
1a, 2	bosses
3	front frame
4	rear plate
5	baseplate
6	attachment plate
5a, 5b	welds
21	PDP
21a, 22	bosses
23	front frame
24	rear plate
25	baseplate
26	attachment plate
25a, 25b, 25c, 25d ...	welds
31	PDP
31a, 22	bosses
33	front frame
34	rear plate
36	attachment plate

FIG. 1

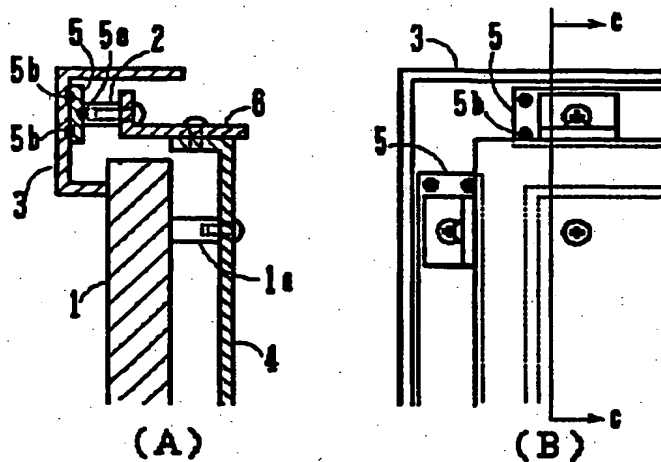


FIG. 2

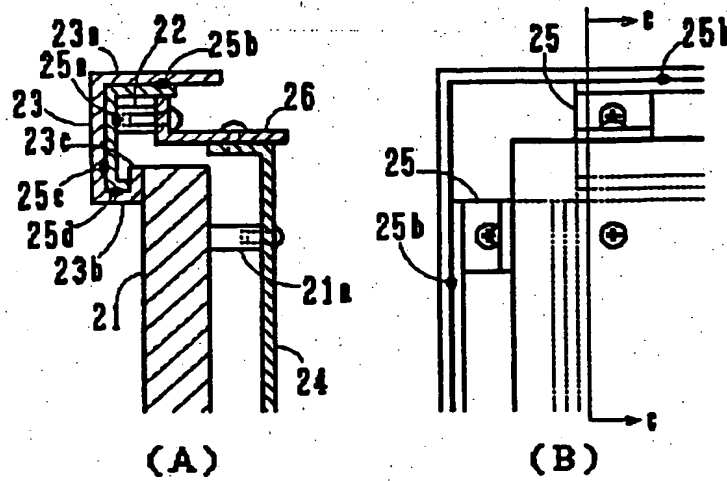


FIG. 3

